

ledge of domestic subjects much more substantial than the smattering which they now get in the very short periods devoted to this essential part of their education. The experiments in this direction which have been tried in Gloucestershire have shown that, while the amount of book knowledge which the children possess may be somewhat smaller, the larger amount of contact they have had with *things*, as distinguished from mere *words*, makes them, on the average, not less, but more intelligent.

In the third place, one of the collaborators, Mr. G. L. Bruce, deals in the third chapter with evening schools in London, and mentions incidentally the great drawbacks to evening work of a university character, which are unfortunately imposed by the new teaching university itself (see pp. 132 and 138). There is no doubt much truth in this complaint, and, if a consideration of the question leads us to be careful that, in the foundation and working of our newer universities, we do not hand over technical training too largely to the control of those whose experience in this kind of work is either wanting or small, we shall have learnt a good lesson. The most successful technical colleges in the world are probably the Technical High School at Charlottenburg (Berlin) and the Massachusetts Institute of Technology at Boston; neither of them is subordinate to an ordinary university, though in each case a flourishing university exists side by side in the same town. Both of them have the right to give degrees, but the basis on which these degrees shall be offered is determined by those primarily interested in technical education; this is by no means always the case in our English universities.

Lastly, the most important matter dealt with in the book is probably the problem as to whether or not the State ought to make compulsory further attendance in continuation schools after a child has left a public elementary school; and if so, whether it should require employers to offer facilities for such attendance so that the child can continue its education without undue pressure. The attitude taken by Prof. Sadler in regard to this matter is one which will commend itself to most thinking persons; he asks for no rapid or revolutionary change, but he indicates clearly that the time has come when a step should be made in the direction taken by our most successful Continental competitors; for he states:—

"I am convinced that in the end some form of compulsion to attend day or evening continuation classes between fourteen and seventeen years of age will be found desirable, not so much in the interest of the picked individuals as in that of the rank and file. Many of the present evils of unemployment may be traced to the lack of educational care and of suitable technical training during the critical years of adolescence. Compulsion, however, should be accompanied by reduction in the hours of juvenile and adolescent labour where those are now excessive."

A careful perusal of the facts and statistics given in this book ought to convince our legislators that a move forward should now be made. It is a well-known fact that many of the students attending our evening continuation classes are so tired when they arrive there that only very poor work can be obtained, or indeed

expected, from them. No such classes are held in Prussia after 8 p.m.; many of them in this country only commence at this hour. Some wise employers (unfortunately comparatively few in number) allow their young people time in which to improve themselves, and so to become more useful citizens and better servants, but this practice is hardly likely to become general unless the State intervenes; that the employer and the nation would benefit in the end few can doubt.

No Government in this country is likely to attempt to deal with a matter of this kind until compelled to do so by public opinion. The volume under review should prove a powerful agency in stimulating the rapid growth of a healthy view of the matter; we therefore cordially congratulate Prof. Sadler on having once more taken a leading part in hastening an important educational and social reform.

J. WERTHEIMER.

ICELAND PAST AND PRESENT.

Island in Vergangenheit und Gegenwart. By Paul Herrman. Erster Teil, Land und Leute. Pp. xii + 376. Zweiter Teil, Reisebericht. Pp. vi + 316. (Leipzig: W. Engelmann, 1907.) Price, 2 vols., 15 marks.

THIS is an account of travel in Iceland in the summer of 1904 by a German schoolmaster. He made the journey in exceptionally favourable circumstances, for, in addition to four months' leave for the special purpose, and a Reise stipendium, the municipal authorities of Torgau provided a *locum tenens* at the gymnasium during his absence; while in Iceland he had the services of the guide who accompanied Thoroddsen on seventeen of his eighteen journeys.

A lover of Iceland and an ardent student of the mythology and folk-lore of northern lands, Herr Herrmann is rather inclined to dwell on the different parts of the country in their aspect as the scenes of this or that Saga. But beyond this, his observation is keen and thorough. Though the book claims to be "not a geological or geographical, but a popular work," we learn incidentally of the geology, geography, natural history, and botany of those parts of the island visited.

The work is divided into two volumes, the first dealing with "Land and People," the second being a full account of three months on the route along the south and east coasts, from Reykjavik to Akureyri. If the book is to be regarded as a "popular" work, it would be advisable to read vol. ii. first. Then, having gained from the detailed description of the journey through the most populous and typical parts of the country a clear idea of the land and its inhabitants, the reader can better follow vol. i., which deals with the land and people generally, and assumes some knowledge of them.

The voyage from Copenhagen to Reykjavik is described, mentioning, *en passant*, Edinburgh, the Orkneys and Shetlands, and the islands south of Iceland, with their myriad sea-bird life. From Reykjavik a trial expedition to Hvalfjörður, Reykholt, and Thingvellir was undertaken to prove the travellers' fitness for the longer distance along the south and

east coasts, a route, travelled now for the first time by a German, that includes the passage of many dangerous glacial rivers.

In vol. ii. is the account of the principal journey. The party, consisting of the author, his guide, and a student from Torgau, left Reykjavik, passed again Thingvellir, and the Geysir district, and made the ascent of Hekla. Then across the Ranga to Oddi Storolfshvoll and the many scenes of the Gunnarr Saga, Bergthorshvoll—of the Njáll Saga—to Vestur and Austur Skaptafells Sysla—the most difficult part of the journey; it is here that the coast is so dangerous, and so many fishing smacks are wrecked. The inhabitants of this district have but little communication with centres of civilisation, and have preserved the ancient characteristics almost unchanged. The travellers then continued through the Mula Sysla (Sudur and Nordur), and Thingeyjar Sysla (Nordur and Sudur), to Akureyri.

Every part traversed is minutely described; there is a good deal of scientific matter for the lay reader; and here it may be remarked that the author has an irritating habit of interspersing his reading matter with references—in addition to the many footnotes—and of placing the Icelandic of so many words in italics and parenthesis. This is a great hindrance to easy reading, especially as the same translation is given many times as the word recurs, and items of information are often repeated.

Vol. i. deals with Iceland's geological origin and formation, its volcanoes and glaciers, its geographical exploration, and traces its history from the earliest colonisation in the ninth century, as a free State, under Norwegian and Danish government, to the present day's self-government under the Danish flag.

The study and practice of medicine, the system of education, which is praised as perhaps the best in the world's history, the language and literature, are all considered, as are the ancient and modern industries and arts—wood-carving, embroidery, sculpture, painting, music, and the drama.

Much space is devoted to agriculture, and eighteen pages treat exclusively of sheep. The varied efforts of the State to encourage the farmers to obtain practical knowledge and to provide schools for their training and assistance are noted. The fishing industry also receives State help, and many statistics of this important branch are given. Much is made of the piracy of foreign fishing boats in Icelandic waters, English trawlers being specially attacked. But the author seems to have a prejudice against everything English; the British tourist is unmercifully criticised, and his manners, clothes, and food unfavourably compared with those of the German traveller. The one of our countrymen who joined the party for a short time must have been a very bad example of his kind, or there is another side to the story, which is given—as all else in the book—in detail.

The descriptions of Reykjavik and Akureyri are very full and explicit, and during his visit Herr Herrmann made the acquaintance of many Icelanders, and so gained, at first hand, information regarding the hospitals, schools, and many public and private social institutions and customs.

He sees everything generally *couleur de rose*, and prophesies a bright future for the island, expressing, nevertheless, the fear that the people, who, more than any other nation, have through centuries of civilisation preserved their ancient manners and customs, their pure language and literature, will, with their advance, lose in primitive charm. He urges philologists, while there is yet time, to make a thorough study of Icelandic.

We can hope, with Herr Herrmann, that he may add later a third volume to his book, dealing with the other parts of the island. If, at times, the personal element is too obtrusive, still the book leaves a very clear idea of Iceland, land and people, past and present, a result due partly to the many and excellent photographs, and numerous references, with which the author fortifies or supplements his own observations.

M. G. B.

ADVANCED ORGANIC CHEMISTRY.

Organic Chemistry for Advanced Students. By Prof. J. B. Cohen. Pp. viii+632. (London: Edward Arnold, 1907.) Price 21s. net.

THERE are several very excellent text-books upon the subject of organic chemistry in the English language, but although these meet the wants of the average student, the want of a more comprehensive book has been long felt. The book before us is intended to supply this want, and to a certain extent it undoubtedly will do so. The book, according to the author, is a series of essays prepared from notes of lectures delivered to senior students. The work is perhaps best described as being a series of monographs upon different branches of chemistry; as a consequence certain subjects have been exhaustively dealt with, and other subjects have been entirely ignored. Some students will therefore find all they require within the covers of the book, and others will search in vain for the branch of chemistry with which they are familiar or desire to become familiar. Of course, a book written in this manner is bound to a certain extent to lack sequence, and one has practically to commence *de novo* with each section of the book, that is to say, every section has its own historical introduction. For example, the first chapter is a more or less general introduction, but when we come to chapter ii., dealing with isomerism and stereoisomerism, there is again a long historical introduction. We are not objecting to the author treating the subjects historically; in fact, it is probably best to deal with each branch in this manner in order that the student may get a thorough and comprehensive grasp of the subject. This method of introducing and showing the gradual development of the subject is more likely to stimulate originality than the simple setting forth of a number of cut-and-dried facts.

There is, of course, a danger in treating organic chemistry in the form of a series of monographs dealing with different branches, because of a tendency to detachment and to an unnecessary division of the subject. But in giving a series of lectures to advanced classes in organic chemistry, there is practically no other way open than thoroughly to exhaust certain